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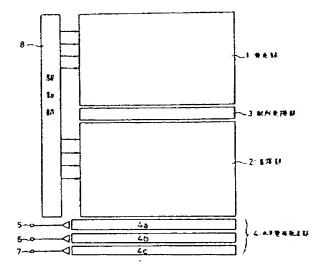
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APPLICANT: FUJI PHOTO FILM CO LTD;

INVENTOR: MUTO HIDEKI;

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TITLE : ELECTRONIC SHUTTER



## ABSTRACT :

PURPOSE: To realize a full-frame electronic shutter by systems of both non-interlace and interlace and to improve picture quality and resolution by operating the shutter by all light receiving elements at the same time and reading the signal charges of all the light receiving elements by accordion transfer.

CONSTITUTION: At the same time as a shutter period passes, all transfer gates are opened, the generated signal charges are transferred to the charge transfer elements of neighboring vertical charge transfer paths  $I_1$ - $I_9$  and transferred to an accumulating part 2 through an arrangement converting part 3 by a driving signal from a driving part 8 based on the so-called accordion transfer system. The signal charge positioned in the even-number field of the accumulating part 3 is transferred to a next MOS type capacity element and the signal charge left in its odd-number field is transferred by fields to the side of a horizontal charge transferring part 4 by the accordion transfer. Thus, with one light receiving action by the light receiving element, a signal generation corresponding to one frame picture is executed and further, an interlace reading convenient for reproducing an animation by a TV system can be executed.

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